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## ABSTRACT

A comparison of two groups of urban area junior college transfer students who attended local urban campuses of the University of Missouri and of two other groups who transferred to the Columbia branch of the University of Missouri was the subject of this study. The comparison was made in regard to the question of whether or not urban area junior college transfer students who attended the Columbia branch of the University of Missouri experienced a greater drop in Grade Point Average (GPA) than did transfers who attended the two local urban campuses. The null hypothesis was tested using GPA's. Means and standard deviations were also computed for pooled junior college and first semester University of Missouri GPA's. Data showed that "transfer shock" was equally intense at all three campuses. Consequently, the author concluded that most urban area junior college students will experience "transfer shock" and that it would be worthwhile for colleges to offer an orientation program for prospective transfer students to inform them of an expected drop in GPA and to impress upon them that a drop in GPA is a normal occurrence among junior college transfer students. (PC)

THE FIRST SEMESTER ACADEMIC PERFORMANCE OF URBAN  
JUNIOR COLLEGE TRANSFER STUDENTS TO COLUMBIA vs  
TWO URBAN CAMPUSES OF THE UNIVERSITY OF MISSOURI

Ronald B. Britton - EPDA Institute

The increasing number of community-junior colleges being established in recent years has resulted in an increase in the number of follow-up studies concerning the post-junior college academic performance of transfer students. These studies have helped to isolate a problem experienced by transfer students immediately after their transfer to a four year institution. This problem, called transfer shock, is the significant drop in grade-point average (GPA) the first semester after transfer (Hills, 1965). This definition will be used in future reference to transfer shock.

Evidence supporting the existence of transfer shock has been recorded for a number of years. In two of the earliest comparisons of junior college transfer students with native students, Mitchell and Bells, (1928), Gerberich and Keir, (1936), found the drop in grade-point average to be as high as 1.3 of a grade point for junior college transfer students their first semester after transfer. A more recent study by Hoyt and Munday (1966), compiling data from across the United States, revealed transfer shock was present in forty-four of forty six cases. In another study, using national data, Knoell (undated), reported the intensity of transfer shock to be 0.50 for students who transferred to major state universities.

Three independent studies at the University of Missouri-Columbia (UMC) by Andrews, (1968), Farley, (1968), and Hartman, (1968), indicated that the intensity of transfer shock experienced by junior college transfer students at UMC was similar to Knoell's findings for major state universities.

One of Hartman's findings was that junior college transfers from large urban area junior colleges experienced a greater GPA drop than do other junior college transfers. This question arises from Hartman's conclusion - do urban area junior college transfer students who attend the Columbia campus of the University of Missouri experience a greater GPA drop than urban junior college transfers who attend a local urban campus of the University? The main purpose of this study was to answer this question and to test if urban area junior college transfer students with lower GPA's experience greater transfer shock. An additional purpose of this study was to provide information to educators in program planning for assisting junior college transfer students. GPA drop is equated with lower first semester University of Missouri GPA than junior college GPA's.

#### HYPOTHESIS

1. There would be no significant difference between GPA's for four groups of randomly selected junior college transfer students. Two groups attending local urban area campuses and two groups attending the Columbia campus of the University of Missouri.

2. When pooled, urban junior college transfer students experience a drop in GPA (compared to junior college GPA) the first semester after transfer to all campuses of the University of Missouri included in this study.

3. The GPA drop for urban area junior college transfer students is greater if attendance is at the Columbia campus (UMC) than a local urban area campus.

4. When pooled, urban area junior college transfer students with junior college GPA's below the mean experience greater first semester GPA drop than do students transferring with junior college GPA's above the mean.

## METHOD

The subjects were junior college transfer students who enrolled at the University of Missouri Fall semester, 1969. The University of Missouri campuses at Kansas City (UMKC) and St. Louis (UMSL) were included as the two urban area campuses. The data was compiled from records supplied by their admissions offices. This study did not attempt to determine, or infer, variation in grading practices between the campuses of the University of Missouri or junior colleges. This variable may be considered a limitation in this study. One-hundred-twenty junior college transfer students, sixty from each urban area, were selected at random but satisfied the following criteria:

1. The students completed at least twenty-five semester hours credit at a junior college in the St. Louis or Kansas City Districts.
2. The students were unmarried.
3. The students did not attend a four year college or university prior to their junior college attendance.
4. The students were full-time students at the University of Missouri during their first semester after transfer.
5. The one-hundred-twenty students were grouped accordingly:
  - a. Thirty students transferred from urban area "A" junior college district to local urban area "A" campus of the University of Missouri.
  - b. Thirty students transferred from urban area "B" junior college district to local urban area "B" campus of the University of Missouri.
  - c. Thirty students transferred from urban area "A" junior college district to the campus at Columbia.
  - d. Thirty students transferred from urban area "B" junior college district to the campus at Columbia.

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ENTER TABLE 1 ABOUT HERE

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## DATA ANALYSIS

## Hypothesis 1:

Sums of squares, mean squares, and F ratios were computed for the four groups of junior college GPA's to test the null hypothesis at the .05 level of significance that the four groups of junior college GPA's did not differ. A two-way analysis of variance was applied. The null hypothesis of no difference between the groups was accepted. The similarity of the GPA's of the four groups of junior college students was an added control in sample bias, especially when samples were pooled.

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ENTER TABLE 2 ABOUT HERE

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## Hypothesis 2:

Means and standard deviations were computed for the pooled junior college GPA's, and the pooled University of Missouri first semester GPA's. The statistical null hypothesis of no difference between the two pooled GPA's was tested by the "t" test for correlated samples. The null hypothesis was rejected at the .05 level of significance and the research hypothesis was accepted. This section reinforced earlier conclusions that transfer shock exists at the Columbia campus of the University of Missouri.

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ENTER TABLE 3 ABOUT HERE

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## Hypothesis 3:

The null hypothesis of no difference among the four groups existed between the first semester GPA acquired at the two local campuses and the Columbia campus of the University of Missouri was tested. The two-way analysis of variance was applied and the statistical null hypothesis was accepted and the research hypothesis rejected. Transfer shock was experienced equally intense at all University of Missouri campuses studied.

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ENTER TABLE 4 ABOUT HERE

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#### Hypothesis 4:

Pooled junior college GPA's were grouped and placed in a frequency distribution denoting junior college GPA and amount of increase or decrease in University of Missouri first semester GPA. Percentages of the pooled GPA drop was determined for the above and below the pooled junior college mean (grand mean) by multiplying the frequency times the average interval GPA drop. The null hypothesis of no difference in GPA drop for those students above the mean or below the mean was rejected by percentages obtained. The research hypothesis of greater GPA drop for junior college transfers below the mean was accepted.

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ENTER TABLE 5 ABOUT HERE

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In consideration of the over-all analysis of the data, one important trend can be associated with the significance of the transfer shock in this study. The distribution of junior college GPA's assumed a near normal distribution with approximately fifty-five per cent of the GPA's falling between 2.20 and 2.79. The distribution of GPA's higher than 2.79 (thirty per cent) had a range much larger than the GPA's below 2.20 (fifteen per cent). Comparatively, the first semester GPA's at the University of Missouri had only thirty per cent of the GPA's falling between 2.20 and 2.79, while fifty-five per cent of the GPA's fell below 2.20. Inspection of Table 6 graphically indicates the marked change in GPA distribution. Also important in the difference between the distributions, is that over one-third of the University of Missouri GPA's were below 1.79.

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ENTER TABLE 6 ABOUT HERE

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#### DISCUSSION

In most studies concerning the academic performance of junior college transfer students, native students at the four year institutions have been used

as a source of comparison. This study purposely deleted this group so that all comparisons would be based on the commonality of junior college transfer students from urban area districts. Also deleted in this study was the consideration of test scores. The lack of control of the ability variable via test scores may be assumed to be a limitation.

The conclusions of this study further reinforce the existence of transfer shock at the Columbia campus of the University of Missouri. Transfer shock was also found to be equally intense at the two urban campuses. A common assumption questioned by the results of this study is that higher academic success results when transfer to a university is within the immediate area rather than to a distant university.

The fact that most urban area junior college transfer students will experience transfer shock has added information pertinent to educational counseling in urban area junior colleges. Prospective transfer students need to be informed of the probable GPA drop in their first semester GPA after transfer to help reduce the "shock". The students' level of expectation of his academic performance at a university may be more realistic after transfer if he understands that his significant GPA drop is "normal". Transfer shock information may also provide means of aiding students and counselors in educational placement.

In this study, over sixty per cent of the total GPA drop was experienced by students who's junior college GPA was below the mean junior college GPA of 2.61. An implication for consideration from this finding is that junior colleges should conduct continued studies of their transfer students to determine the extent of grading differentials that may exist at different receiving institutions.

The results of this study, being consistent with national studies, would indicate that the high levels of competition at major state universities would generally not favor urban area junior college transfer students with below average academic performances. In light of the increasing selectivity of four

year institutions, and the increased number of junior college transfer students, it is important that further cooperative research be conducted on the marginal student in his transferring.

In conclusion, an area within the domain of the four year institutions which should be developed more functionally is orientation of first semester junior college transfers. The divisional structure within many universities provides an opportunity to initiate, or expand, the student service of orientation in this critical semester. In lieu of extensive orientation programs, consideration should be given to making the first semester at the four year institution a "grace" semester for junior college transfers. This "grace" semester could be an alternative to relaxing, or revising academic dismissal policies which often may make the junior college transfer students first semester at a university his last semester.



TABLE 1  
SAMPLE DESIGN OF STUDY, N = 120

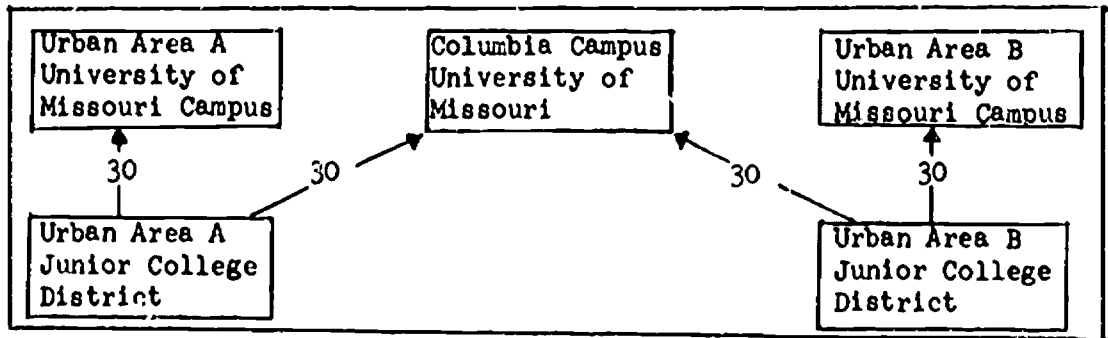


TABLE 2  
CORRELATED SAMPLE  $t$  TEST  
BETWEEN JUNIOR COLLEGE  
& UNIVERSITY OF MISSOURI  
GRADE POINT AVERAGES

	MEAN	SD	N	df	t
Pooled Junior College GPA's	2.618	.467	120	119	*8.948
Pooled University of Missouri 1st Semester GPA's	2.086	.799	120		

\*Significant beyond the .001 level

TABLE 3  
ANALYSIS OF VARIANCE OF  
THE FOUR JUNIOR COLLEGE  
GROUPS GPA's

SOURCE	SS	df	MS	F-ratio
Urban Area A Junior College GPA's	0.258	1	0.258	*1.264
Urban Area B Junior College GPA's	0.051	1	0.051	*0.250
Interaction	0.325	1	0.325	**1.593
Within Sets	23.704	116	0.204	

GRAND MEAN = 2.612      SD = 0.450

\* Less significant than the .250 level  
\*\* Less significant than the .100 level

TABLE 4  
ANALYSIS OF VARIANCE OF THE  
FOUR GROUPS 1st SEMESTER GPA's  
AT THE COLUMBIA vs URBAN AREA CAMPUSES

SOURCE	SS	df	MS	F-ratio
Urban Area's GPA's	0.210	1	0.210	*0.315
Columbia Campus GPA's	0.301	1	0.301	*0.450
Interaction	0.722	1	0.722	*1.081
Within Sets	77.437	116	0.667	

GRAND MEAN = 2.078      SD = 0.809

\* Less significant than the .250 level

TABLE 5

FREQUENCY DISTRIBUTION OF  
JUNIOR COLLEGE GPA'S AND  
PERCENTAGE OF TOTAL DROP  
BELOW JUNIOR COLLEGE  
GRAND MEAN

GPA INTERVAL	GPA FREQUENCY	**GPA CHANGE	TOTAL GPA DROP (PER CENT)
3.80-4.00	4	- .53	
3.60-3.79	1		
3.40-3.59	1	-1.00	
3.20-3.39	2	-1.60	37
3.00-3.19	12	-1.30	
2.80-2.99	13	- .56	
2.60-2.79	16	-1.17	
-----GRAND MEAN = 2.612			
2.40-2.59	21	-1.70	
2.20-2.39	19	-1.52	
2.00-2.19	14	-1.17	63
1.80-1.99	4	- .60	
	<u>          </u>		
	*N=107		

\*GPA change of  $\pm .10$  were omitted.

\*\*Averaged at mid-point of GPA change  
interval in .20 of 1 grade point.

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